

TITLE OF THE INVENTION

NOVEL ISOFORMS OF CENTROMERE PROTEIN E (CENPE)

ABSTRACT OF THE DISCLOSURE

5 The present invention features nucleic acids and polypeptides encoding three novel variant isoform of centromere protein E (CENPE). The polynucleotide sequence of *CENPEv2*, *CENPEv3*, and *CENPEv4* are provided by SEQ ID NO 6, SEQ ID NO 8, and SEQ ID NO 10, respectively. The amino acid sequences for CENPEv2, CENPEv3, and CENPEv4 are provided by SEQ ID NO 7, SEQ ID NO 9, and SEQ ID NO 11, respectively. The present invention also
10 provides methods for using CENPEv2, CENPEv3, and CENPEv4 polynucleotides and proteins to screen for compounds that bind to CENPEv2, CENPEv3, and CENPEv4, respectively. The present invention also provides for methods to detect the presence of cancer and for inhibiting abnormal cell proliferation.

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